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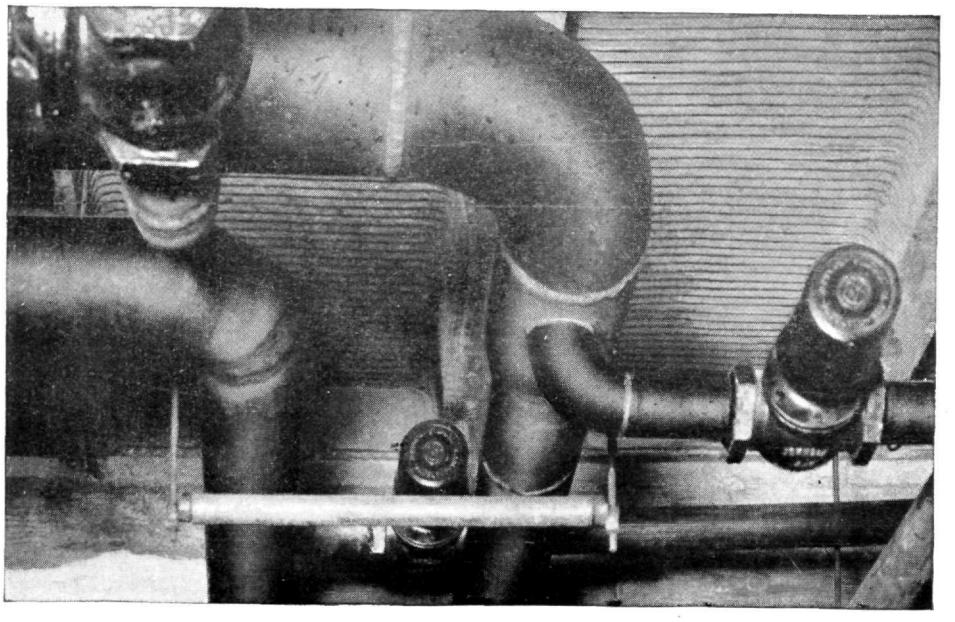
OXWELDING

SIMPLIFIES PIPING DESIGN



THE laying out of a piping system is materially simplified by oxwelding. Where this method of jointing is used, plans are not governed by the availability of standard fittings and the avoidance of specials.

Oxwelding does not change the general design features. Size of pipe, method of suspension, provision for expansion and contraction and location of turns, branch connections, valves and other fittings are the same as for other types of construction. Welded joints and fittings are merely substituted to obtain increased compactness, economy and serviceability.

Under Procedure Control, welded piping construction may be undertaken with the same confidence in a satisfactory result as older methods.

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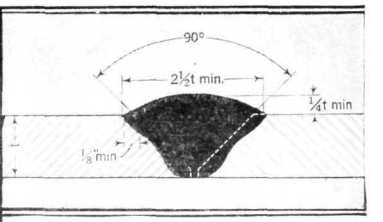

DESIGN STANDARDS FOR OXWELDED PIPING

Any welded piping system, even in its most complicated form, is a combination of a few fundamental welding design details.

WELDED LINE JOINTS

Open Single Vee Butt Weld

Explanation of Design:

The Open Single Vee Butt Weld illustrated is the type of weld most extensively used for jointing steel pipe. When properly made, it develops the full strength of the pipe wall; it is easy to make and of low cost.

Uses:

The Open Single Vee Butt Weld is the standard line joint and is recommended for standard, extra heavy and double extra heavy piping, for all services carrying all pressures to which steel and wrought iron pipe are subjected.

Specification:

When the Open Single Vee Butt Weld is specified the following should be included in the specification:

1. The spacing between pipe ends, before tacking, shall be as given in Table 1, page 11, "Design Standards for Oxwelded Piping."
2. Welds shall be thoroughly fused to the joint edges and shall extend completely to the bottom of the vee.
3. Welds shall have a minimum width of $2\frac{1}{2}$ times the pipe wall thickness and shall be symmetrical with respect to the center line of joint.
4. Welds shall be built up to present a gradual increase in thickness from edge to center.
5. Thickness at the center of the weld shall not be less than $1\frac{1}{4}$ times the pipe wall thickness.
6. The weld shall be of sound metal free from laps, gas pockets, slag inclusions or other defects.

The above is excerpted from a handbook on fundamental designs, titled, "Design Standards for Oxwelded Steel and Wrought Iron Piping," published by The Linde Air Products Company. A copy of this handbook should be in every architectural drafting room. It is yours for the asking. Just fill in and mail the coupon.

Technical Publicity Dept., 12th Floor
205 East 42nd St., New York, N. Y.

Please send me a copy of your new book, "Design Standards for Oxwelded Steel and Wrought Iron Piping," which also explains procedure control for pipe welding.

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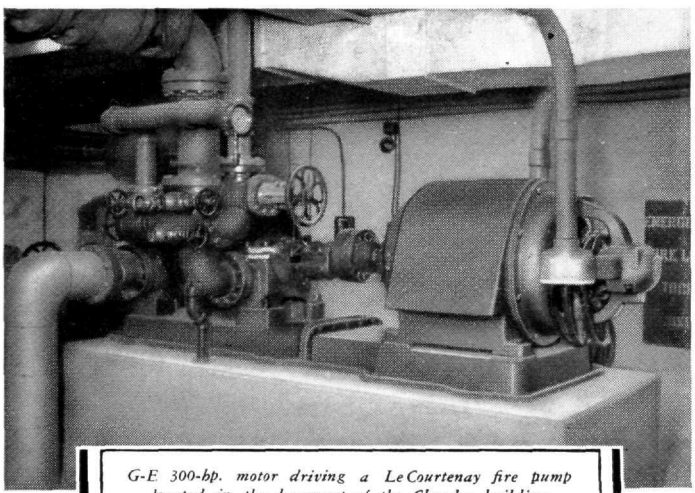
DRIVING A RIVER UP A SKYSCRAPER

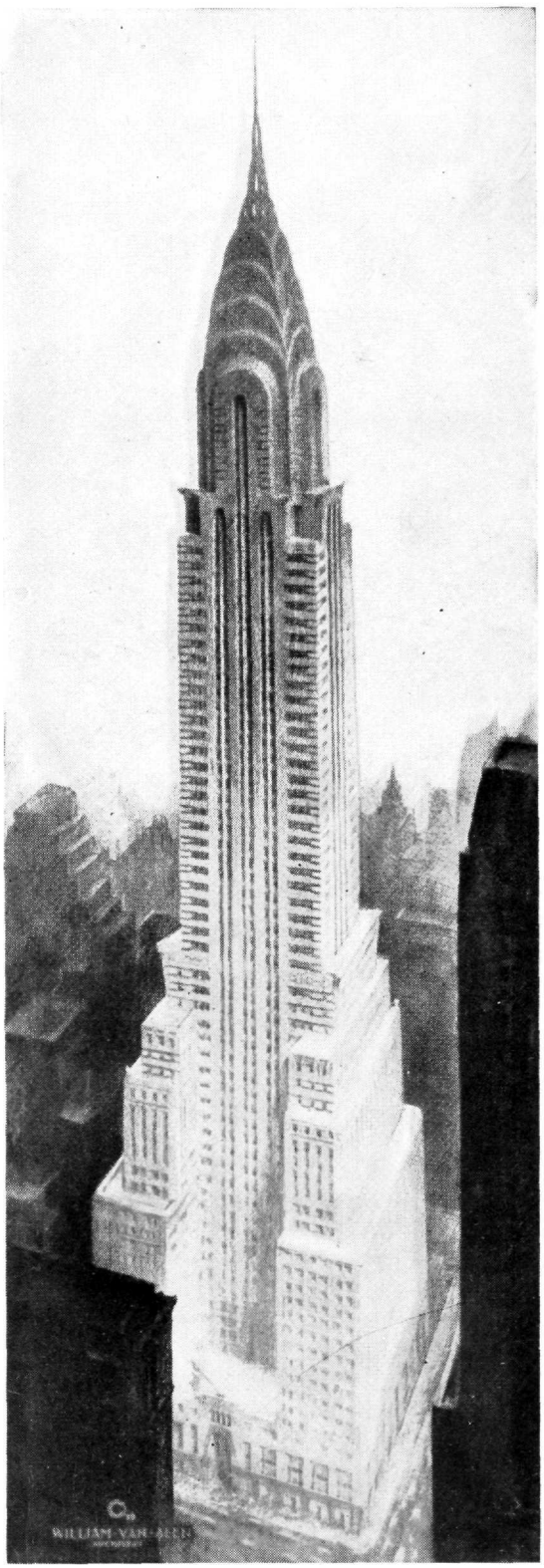
SEVEN hundred and fifty gallons of water a minute pouring out from three nozzles over one thousand feet above the busy streets of Manhattan—a small river driven skyward 77 stories—that's the service afforded by the G-E motorized fire pumps of the famous Chrysler building.

During a recent test these pumps developed a pressure of 58 pounds per square inch at the 77th floor, or 422 pounds pressure per square inch at the basement installation—a mighty test for drive and pump alike. A stunt? No! Such protection must be maintained as long as needed—on a second's notice.

Such outstanding performance has won confidence for the hundreds of G-E products. This confidence has been maintained largely through the work of more than three decades of college graduates who are members of the G-E organization.



G-E 300-hp. motor driving a LeCourtenay fire pump located in the basement of the Chrysler building, New York City



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